WWC Intervention Report U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



Early Childhood Education September 28, 2006

Shared Book Reading

Practice description

Shared Book Reading is a general practice aimed at enhancing young children's language and literacy skills and their appreciation of books. Typically, Shared Book Reading involves an adult reading a book to one child or a small group of children without

requiring extensive interactions from them. Two related practices are reviewed in the What Works Clearinghouse (WWC) intervention reports on *Dialogic Reading* and *Interactive Shared Book Reading*.

Research

Three studies of *Shared Book Reading* met the WWC evidence standards.¹ These studies, which included a total of 124 preschool children, examined intervention effects on children's oral language and phonological processing. All children were from

low- to middle-income families and about half were female. This report focuses on immediate posttest findings to determine the effectiveness of the intervention.²

Effectiveness

Shared Book Reading was found to have mixed effects on oral language and potentially positive effects on phonological processing.

	Oral language	Print knowledge	Phonological processing
Rating of effectiveness	Mixed effects	Not reported	Potentially positive effects
Improvement index ³	Average: +3 percentile points	Not reported	Average: +17 percentile points
	Range: -19 to +15 percentile points		Range: +1 to +43 percentile points
	Early reading/writing	Cognition	Math
Rating of effectiveness	Not reported	Not reported	Not reported
Improvement index ³	Not reported	Not reported	Not reported

^{1.} To be eligible for the WWC's review, the Early Childhood Education (ECE) interventions had to be implemented in English in center-based settings with children aged 3–5 or in preschool.

^{2.} The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

^{3.} These numbers show the average and the range of improvement indices for all findings across the studies.

Absence of conflict of interest

The WWC ECE topic team works with two principal investigators: Dr. Ellen Eliason Kisker and Dr. Christopher Lonigan. The studies on *Shared Book Reading* practices reviewed by the ECE team included one study on which Dr. Lonigan was a primary author. Dr. Lonigan's financial interests are not affected by the success or failure of *Shared Book Reading* practices, nor does he receive any royalties or other monetary return from the use of *Shared Book Reading* practices. Dr. Lonigan was not involved in the decision to include the study in the review, and he was not involved in the

coding, reconciliation, or discussion of the included study. Dr. Kisker led all review activities related to the study. The decision to review *Shared Book Reading* practices was made by Dr. Kisker, as co-principal investigator, in collaboration with the rest of the ECE team following prioritization of interventions based on the results from the literature review. This report on *Shared Book Reading* was reviewed by a group of independent reviewers, including members of the WWC Technical Review Team and external peer reviewers.

Additional practice information

Developer and contact

Shared Book Reading is a practice that does not have a developer responsible for providing information or materials.

Scope of use

Information is not available on the number or demographics of children or centers using this intervention.

Teaching

In center-based settings, *Shared Book Reading* practices can be used by teachers with individual children or in small- and

large-group settings. Variations of *Shared Book Reading* include an adult reading a story to a child or group of children, an adult reading a story to a child or group of children and giving them the opportunity to retell the story, or an adult reading the same story more than one time to a child or group of children.

Cost

Information is not available about the costs of teacher training and implementation of *Shared Book Reading* practices.

Research

Ten studies reviewed by the WWC investigated the effects of *Shared Book Reading* practices in center-based settings. Three of the studies (Irlen, 2003a, b⁴; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999) were randomized controlled trials that met WWC evidence standards. The remaining seven studies did not meet WWC evidence screens.

Irlen (2003a) included 33 four- to five-year-old children from three preschools in the Los Angeles area. Two groups were included: storybook-retell (adults read a book to a group of children and children retold the story) and video-retell (children watched the story on a video and then retold the story). The study also included 10 children in a no-treatment comparison group that was added to the study sample after group assignment was complete and the intervention had started. For the purposes of this review, the WWC chose the storybook-retell condition as the intervention condition and the video-retell condition as the comparison condition and did not include the post-hoc no-treatment control group.⁵ In this study, oral language outcomes for children in the storybook-retell condition were compared with those of children in the video-retell condition.

^{4.} Irlen (2003) included two different but relevant shared book reading conditions. The WWC counted the report by Irlen (2003) as two studies and designated the storybook retell vs. video retell comparison as Irlen (2003a) and the storybook repeat vs. video repeat comparison as Irlen (2003b). Use of the active contrast groups in Irlen (2003a, b) may have reduced the effect size estimate, but this contrast specifically isolates the impact of shared reading beacause it is the only factor that varies between the contrasted conditions.

^{5.} This decision was made because the no-treatment comparison group was not part of the original randomized sample and the author did not provide evidence of group equivalence prior to the intervention for the no-treatment comparison group and the other study groups. The inclusion of this comparison group would have resulted in the study not meeting WWC evidence screens.

Research (continued)

Irlen (2003b) included 30 four- to five-year-old children from three preschools in the Los Angeles area. Two groups were included: storybook-repeat (children listened to the story twice) and video-repeat (children watched the story twice). The study also included 10 children in a no-treatment comparison group that was added to the study sample after group assignment was complete and the intervention had started. For the purposes of this review, the WWC chose the storybook-repeat condition as the intervention condition and the video-repeat condition as the comparison condition and did not include the post-hoc no-treatment control group.⁵ In this study, oral language outcomes for

children in the storybook-repeat condition were compared with those of children in the video-repeat condition.

Lonigan et al. (1999) included 95 two- to five-year-old predominantly low-income children from five child care centers in an urban area in Florida. This study compared two interventions—*Dialogic Reading* and typical *Shared Book Reading*—to a no-treatment comparison group. This report focuses on the comparison of oral language and phonological processing outcomes between the typical *Shared Book Reading* group and the no-treatment comparison group⁶ with a total of 61 children.

Effectiveness

Findings

The WWC review of interventions for early childhood education addresses children's outcomes in six domains: oral language, print knowledge, phonological processing, early reading/writing, cognition, and math.⁷

Oral language. Three studies examined outcomes in the oral language domain. One study showed statistically significant and positive effects, and two studies showed indeterminate effects. Irlen (2003a) compared the storybook-retell and video-retell groups on three measures in this outcome domain, and no statistically significant differences were found (as calculated by the WWC).⁶ In this study, the effect of *Shared Book Reading* on oral language was indeterminate, according to WWC criteria. Irlen (2003b) compared the storybook-repeat and video-repeat groups on the same three oral language measures. As with Irlen (2003a), the WWC found no statistically significant differences between the two groups.⁸ In this study, the effect of *Shared Book Reading* on oral language was indeterminate, according to WWC criteria. Lonigan et al.

(1999) reported findings for four measures in this outcome domain. The authors reported, and the WWC confirmed, a statistically significant difference favoring the intervention group on the Woodcock-Johnson Psychoeducational Battery-Listening Comprehension Subtest (WJ-LC). There were no statistically significant effects for the other three outcome measures. In this study, the effect of *Shared Book Reading* on oral language was statistically significantly and positive, according to WWC criteria.

Phonological processing. Lonigan et al. (1999) reported, and the WWC confirmed, a statistically significant difference favoring the intervention group on one of the four measures in this outcome domain (alliteration oddity detection). In this study, *Shared Book Reading* had a statistically significantly positive effect on phonological processing, according to WWC criteria.

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as: positive, potentially positive, mixed, no discernible

^{6.} The comparison between the Dialogic Reading group and the comparison group is included in the WWC Dialogic Reading intervention report.

^{8.} The study author did not report the statistical significance levels of the differences between these two groups, so the WWC computed the significance levels based on data provided by the author.

Effectiveness (continued)

effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings,⁷ the size of

the difference between participants in the intervention condition and the comparison condition, and the consistency in findings across studies (see the <u>WWC Intervention Rating Scheme</u>).

The WWC found Shared
Book Reading to have
mixed effects for oral
language and potentially
positive effects for
phonological processing

Improvement index

The WWC computes an improvement index for each finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study as well as an average improvement across studies (see <u>Technical Details of WWC-Conducted Computations</u>). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analysis. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results. The average improvement

index for oral language is +3 percentile points across three studies, with a range of -19 to +15 percentile points across findings. The average improvement index for phonological processing is +17 percentile points for one study, with a range of +1 to +43 percentile points across findings.

Summary

The WWC reviewed 10 studies on *Shared Book Reading*. Three of these studies met WWC evidence standards; the remaining studies did not meet WWC evidence screens. Based on these three studies, the WWC found mixed effects for oral language and potentially positive effects for phonological processing. The evidence presented in this report may change as new research emerges.

References

Met WWC evidence standards

Irlen, S. M. (2003a). The impact of video viewing and retelling on preliterate children's narrative comprehension. *Dissertation Abstracts International*, *64*(04), 1174A. (UMI No. 3088967). (Study: storybook-retell versus video-retell).

Irlen, S. M. (2003b). The impact of video viewing and retelling on preliterate children's narrative comprehension. *Dissertation Abstracts International, 64*(04), 1174A. (UMI No. 3088967). (Study: storybook-repeat versus video-repeat).

Lonigan, C. J., Anthony, J. L., Bloomfield, B. G., Dyer, S. M., & Samwel, C. S. (1999). Effects of two shared-reading interven-

tions on emergent literacy skills of at-risk preschoolers. *Journal of Early Intervention*, 22(4), 306–322.

Did not meet WWC evidence screens

Box, J. A., & Aldridge, J. (1993). Shared reading experiences and Head Start children's concepts about print and story structure. *Perceptual & Motor Skills*, 77(3), 929–930.¹⁰

Additional source:

Box, J. A. (1991). The effects of shared reading experiences on Head Start children's concepts about print and story structure. *Dissertation Abstracts International*, *51*(12), 4015A. (UMI No. 9107738).¹⁰

9. One single-case design study was identified but is not included in this review because the WWC does not yet have standards for reviewing single-case design studies.

10. Complete data were not reported: the WWC could not compute effect sizes.

References

- Jones, C. B. (1987). The effect of oral reading by senior citizens on the oral language and readiness skills of language-delayed prekindergarten children. *Dissertation Abstracts International*, 48(3), 556A. (UMI No. 8713620).¹¹
- Lamb, H. A. (1986). The effects of a read-aloud program with language interaction. *Dissertations Abstracts International*, *47*(5-A). (UMI No. 8616894).¹²
- Mautte, L. A. (1991). The effects of adult-interactive behaviors within the context of repeated storybook readings upon the language development and selected prereading skills of prekindergarten at-risk students. *Dissertation Abstracts International*, *52*(1), 122A. (UMI No. 9115887).¹²
- Murray, B. A., Stahl, S. A., & Ivey, M. G. (1996). Developing phoneme awareness through alphabet books. *Reading & Writing*, 8(4), 307–322.¹³

Additional source:

- Murray, B. A., Stahl, S. A., & Ivey, M. G. (1993). Developing phonological awareness through alphabet books. Paper presented at the Annual Meeting of the National Reading Conference (Charleston, SC, December 1–4, 1993).¹³
- Neuman, S. B. (1996). Children engaging in storybook reading: The influence of access to print resources, opportunity, and parental interaction. *Early Childhood Research Quarterly*, 11(4), 495–514.¹⁴
- Ratliff, J. L. (1987). Explicit instruction in story structure: Effects on preschoolers' listening comprehension. *Dissertation Abstracts International*, 47(11), 3972A. (UMI No. 8625352).¹²

For more information about specific studies and WWC calculations, please see the <u>WWC Shared Book Reading</u> <u>Technical Appendices</u>.

^{11.} Lack of evidence for baseline equivalence: the study, which used a quasi-experimental design, did not establish that the comparison group was equivalent to the intervention group at the baseline.

^{12.} Confound: the effects of the intervention could not be separated from other factors; the impact of the agent of the intervention was confounded with the impact of the intervention

^{13.} Confound: There was only one cluster in each study condition; therefore, the effects of the intervention could not be separated from the effects of the cluster.

^{14.} Does not use a strong causal design: the study did not use a comparison group.